USE OF WIM SITES FOR COMMERCIAL VEHICLE ENFORCEMENT

The Wisconsin Department of Transportation (DOT) has a long history of using weigh in motion (WIM) technology for planning purposes when designing roadways. Data is collected at various SHRP (strategic highway research project) sites throughout the state. WIM technology is also used within the DOT by the Division of State Patrol for weight enforcement of commercial motor vehicles. Four of our Safety and Weight Enforcement Facilities (SWEFs) are equipped with WIM technology for commercial vehicle enforcement.

At one time data collected at SWEFs would be sent to the Bureau of State Highway Planning so that it could be incorporated with other data collected and used for planning purposes. In more recent years the Planning Section chose to discontinue collecting and using the WIM data from the SWEFs. They felt that the information was not reliable since the commercial vehicle traffic coming through the enforcement facilities was mostly "volunteer". That is, since the carriers know where the enforcement sites are located, they would use alternate routes to avoid the facilities if they were hauling overweight. They felt that only those units which were at legal weight would enter the facilities as a general rule.

Over the last several years the Division of State Patrol has been researching the feasibility of using the SHRP sites as a screening tool for commercial vehicle enforcement. These sites are located on major routes, generally in areas where there are no permanent enforcement facilities. By having the ability to screen for violations at these sites "real time", we could make more effective use of our enforcement

efforts and target only those units which are hauling in excess of the legal limits and damaging the infrastructure.

To date, the Planning Section of the Department has been reluctant to allow shared use of these sites. They feel that if enforcement is using these sites, word would get out among carriers and they would avoid or divert from these locations. This would then result in the data collected from these sites being corrupted (i.e., not showing an accurate sampling of what is actually occurring on the roadways).

This theory is not unique to Wisconsin. Many other states feel the same about the need to protect the integrity of the data collection sites installed for planning purposes. Enforcement personnel in these same states would like to be able to take advantage of the information for real-time applications. They are charged with the responsibility of protecting the existing infrastructure. By intercepting vehicles which are operating overweight and removing the overloads, pavement damage can be reduced. This results in a cost savings to the state.

Carriers across the country have examined their options when it comes to generating profits for their companies. There are those companies who have determined that the occasional enforcement intervention resulting in a fine is an acceptable cost of doing business. The profits made from carrying additional freight on trips made without enforcement detection far surpass the fines levied those infrequent times when the carrier is detected using conventional enforcement methods.

There are agencies across the United States which have found ways of sharing the technology and data generated from SHRP sites. For example, Michigan has demonstrated how planning and enforcement can effectively use the same resources for

varied purposes. They have experienced successful enforcement results without adverse effects on the data collected for planning. Michigan, however, is currently experiencing problems with some of their SHRP sites due to a lack of proper maintenance.

Indiana has experienced great success with their concept of "virtual weigh stations". They have found that a cooperative partnership between planning and enforcement benefits the entire program. Commercial vehicles can be screened real-time; overweight violations can be acted upon at the time of the violation; further damage to the infrastructure can be avoided by removing the overload from the roadway and the WIM equipment at the site is consistently being monitored and validated. In this manner problems with the WIM can be detected early, which ensures that the data being collected for planning purposes is accurate and reliable. The results in Indiana are so successful that future "virtual weigh stations" are being designed and implemented. Both planning and enforcement are able to achieve their respective goals and objectives.

In light of financial and personnel constraints facing agencies today, it is important to search for innovative ways to pool available resources in order to achieve desired results. States must look beyond the traditional methods of operation in order to maximize success. There are ways for planning and enforcement to work together and still protect the integrity of the data. We just need to find that common ground.